

Project: 680 Rylands Building, Manchester
Non-Intrusive Condition Survey



Metalwork Surveyor and Conservator – Sam Jacklin & Andrew Chant
Survey Carried Out – Tuesday 19th November 2024

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Introduction

Calibre Metalwork Ltd were instructed by Domis Construction Ltd to undertake a non-intrusive ironwork survey on the 20th Century Rylands Building, Manchester.

The building was built in 1932 for Rylands & Son's textile company. The building was designed by the eminent Manchester Architect Harry S Fairhurst.

In 1957 Debenhams (Former Paulden's Department Store) acquired the building following a fire at their headquarters.

The building is currently vacant and undergoing major construction work.

The survey was undertaken on Tuesday 19th November to determine the current condition, material and proposed method of repair on all the listed items:

Ground Floor Frieze

Upon initial inspection and undertaking a scratch test it was apparent that the frieze is constructed from either brass or bronze.



The frieze is fixed with 8no original slot headed screw fixings. In addition, there were found to be 2no recent torx screw non original fixings added.

The frieze panels have been overpainted many times over the years. The existing paintwork is flaking and failing throughout, making the current condition of the frieze difficult to survey in-situ. However, the frieze appears to be in complete condition throughout.

The castings are likely to be secured to a first fix bracket behind, but access prevented inspection. The castings need to be removed to assess these elements.



The frieze sections are in ~1800mm panels with a metal rail fixed with decorative rail holders at approximately 500mm centres. The rail appeared to be installed in approximately 3000mm lengths and is joined via a wider rail holder and fixed via 2 no grub screws.



Modus Operandi

It is our proposal to tag, record and remove each panel / rail and decorative fixings. Sensitively clean, as not to damage the finish of the soft castings, to reveal the true condition of the frieze beneath.

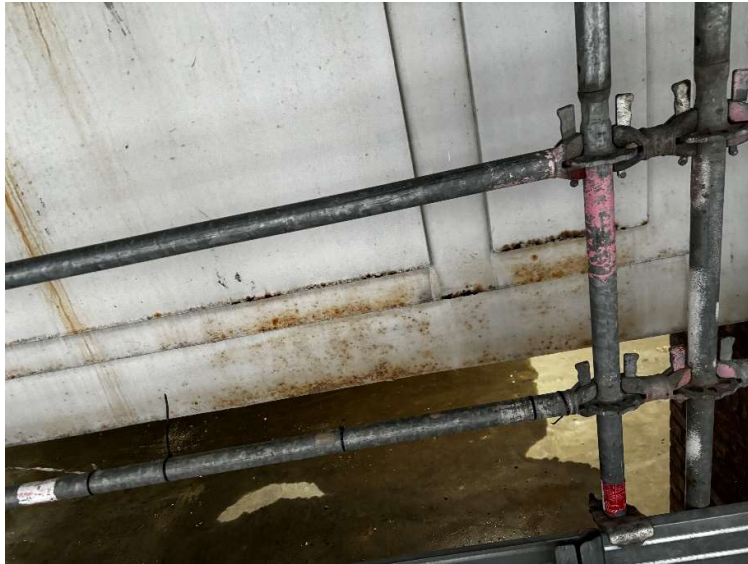
We will then undertake a condition survey to reveal any unforeseen repairs and issue a quotation for your approval.

Following your approval, we will carry out any required repairs and we propose to apply our heritage approved wax to preserve the original material finish and install into original locations.

Bridgewater Street Spandrel Panels

There are 99no spandrel panels on the Bridgewater Street elevation of the building. The panels are approximately 2500mm x 1500mm and constructed from cast iron.

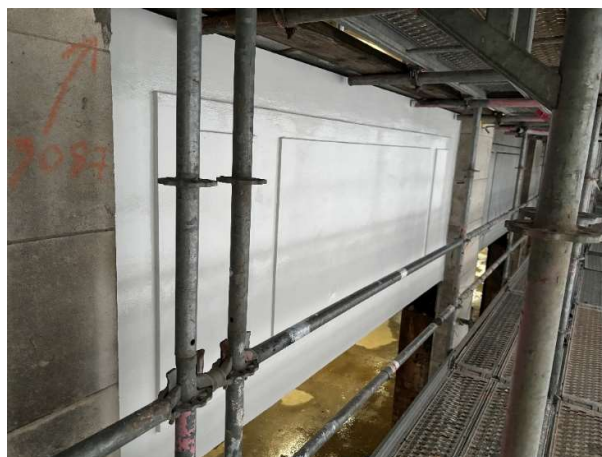
There is localised corrosion apparent on a number of the panels and in many cases, there are casting defects (pits) within the panel. Where the paint has been damaged or lifted, localised corrosion has become apparent.



Modus Operandi

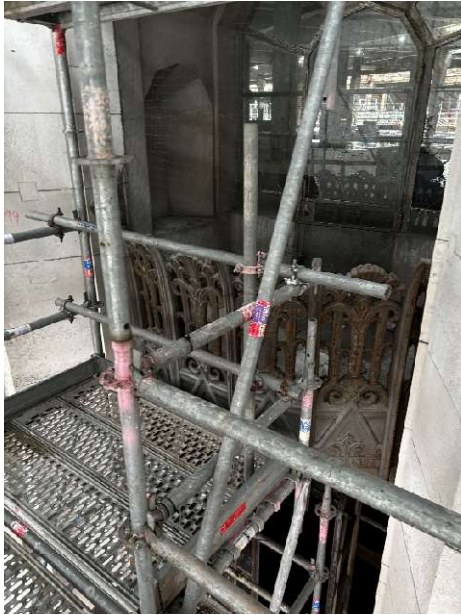
As per the sample we have already undertaken, we propose to retain as much of the sound paint as possible, treating only corroded areas with the complete removal of paint. Rust would then be abraded to bright metal and converted using our acidic solution and primer applied locally. All other areas would be sanded to provide a key feathering in any edges to existing paint throughout to achieve a smooth finish.

We will apply our own heritage approved paint system by roller / brush.



Sixth Floor Balconies 2no

The balconies are constructed of cast iron 5no 'full' decorative panels and 'half' panels at either end. The panels are fixed on an assumed concrete base. The half panels at either end are embedded into the stone with no apparent base fixing visible from the scaffold. The full panels are mechanically fixed via 3no bolt fixings. On the underside of the assumed concrete base there is a decorative iron section that is fixed via 2no bolt fixings with decorative patresses.



The balconies appear to be in complete condition with no visible cracks / defects.

On the top side of the castings there is evidence of some unused original fixing holes and it is assumed that originally the balconies were fitted with a handrail that has since been removed.



Modus Operandi

To access all the inaccessible corrosion and to assess the strength and quality of the fixings, we propose to remove the 5no 'full' castings back to our local workshop. Blast clean to SA 2.5 standard to reveal any hidden defects within the casting.

Any unforeseen repairs will then be made visible. At this stage we will undertake a priced condition survey for your approval.

Following your approval, we will undertake the repairs and finish using our heritage approved paint system, in a single BS or RAL colour of your choice.

Prior to installation of the 5 removed castings, we propose to carry out an in-situ restoration of the 2no 'half' castings and cast-iron base. We will mechanically clean all accessible iron in-situ. We will remove and treat visible surface rust. It is currently assumed that no repair works will be required. We will finish paint all accessible areas in our heritage approved paint system in a single BS or RAL colour.

Following our finishes being applied we will install all removed castings into original fixing holes, repaired if necessary by others, using new fixings where appropriate.

Decorative Spandrel Panels 6no

The 6no spandrel panels (3no on the East Wing & 3no of West Wing) are constructed from cast iron. They consist of an iron frame with an overall frame size of 2120 x 420mm. There is a border of approximately 40mm on the outside 50mm thick.

There decorative infills are cast iron and span between the stone reveals.

The panels are mechanically fixed via 2no fixings top & bottom on either side. The spigot in which they are attached is fixed within the stone, the fixing of the spigots is currently unknown.

All 6no castings appear to be in complete condition however the fixings are corroded with rust build up on the top side making the visibility and accessibility of the fixings difficult to see / survey. Rust is evident, especially to the rear.



Modus Operandi

Similarly to the balconies above, we propose to release the central panel from the spigots and transport to our workshop for a full restoration. This will allow the fixings to be assessed for strength and will allow access to the trapped corrosion evident at the fixings.

We propose to remove the central castings back to our local workshop. Blast clean to SA 2.5 standard to reveal any hidden defects within the casting and to handle the old lead based paints in controlled conditions.

Once any unforeseen repairs are made visible, we will undertake a priced condition survey for your approval.

Following your approval, we will undertake the repairs and finish using our heritage approved paint system, in a single BS or RAL colour of your choice.

As requested by MC we propose to leave the spigots in the stone and carry out an in-situ restoration to the accessible areas. We will manually clean back all accessible areas, removing & treating any surface rust before applying our heritage approved paint system.

Following restoration of the accessible areas of the spigot, we will install the fully restored central panels with new fixings.

Window Spandrel Panels 6no (*panel behind decorative spandrel panel*)

Situated behind each of the decorative spandrel panels mentioned above is an iron framed window with overpainted glazing and not an 'iron window spandrel panel' as was thought previously. We undertook a scratch test to reveal that these were an iron window frame with painted glass.



Access is very limited to the windows due to the scaffolding & the windows being directly behind the iron spandrels however, the iron frames appear to be in complete condition. Constructed of a single outer frame with a larger central window situated between two smaller windows of similar size, dimensions of the glass were unable to be taken due to access but the overall width is approximately 2130 x 1000mm.

There is corrosion evident in many areas where the paint has failed over the years allowing water to ingress. Where the paint adhesion has failed on the glass and has begun to crack and flake throughout.



Modus Operandi

Following the removal of the spandrel panels situated in front of the windows, when full access will then be available to the windows. We propose to carefully remove the glass by cutting the putty and releasing the glazing. Following removal of the glass we can determine the fixings in the iron and carefully remove the iron frames back to our local workshop.

Within our workshops, we will blast clean to SA 2.5 standard to reveal the true condition of the ironwork. Once any hidden defects have been revealed we will undertake a priced condition report for your approval.

Using heritage techniques, we will carry out the approved repairs before finishing in a single BS or RAL colour using our heritage approved paint system.

We will then install the iron frames into existing holes, made good by others prior to our installation, and glaze the windows using heritage approved putties on site with suitably approved glass specified by yourself prior to removal.

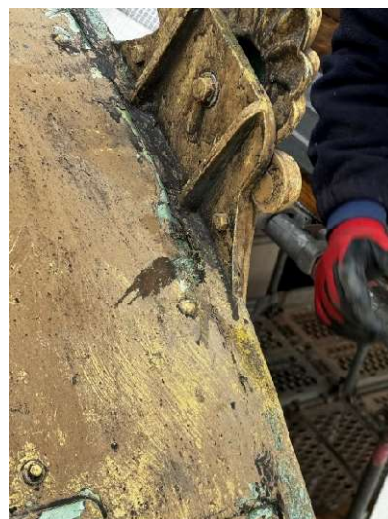
Market Street Clock (External Restoration Only)

Upon initial inspection it became apparent that the clock is clad with using a mixture of brass or bronze. It is likely, although not proven yet, that the clock structure (hidden) is probably iron and its condition currently unknown. The brass / bronze cladding, probably originally polished and varnished / lacquered has been overpainted over years and this is now failing in many areas.

The clock appears to be in complete condition and constructed in 12no castings on each face with the body of the clock being constructed from brass/bronze with 1no access hatch visible. The decorative section on the 8no decorative sections on each face appear to be castings and are screwed on to the main clock face via 5no fixings.

The clock hands on both faces are also constructed from either brass, bronze or copper and finish painted 'black'

The glazing on the clock face appears to be in complete condition with no visible cracks.



Modus Operandi

We propose to tag and record all sections of the clock before carefully dismantling into manageable sections and lowering to the ground via use of the goods lift on site.

It is believed that once the brass/bronze body of the clock is removed by the visible fixings, we will be able to tag/record/remove the glazing on the clock face and access the internal fixings of the castings.

Following removal of all the castings back to our workshop, we will suitably clean all sections to reveal the true condition. We will then undertake a priced condition survey, quantifying all required repairs.

Using heritage techniques, we will undertake all approved repairs and suitably finish the clock components (polishing brass / bronze work and painting ironwork).

The glazing carefully removed from site, will be cleaned back and preserved within our workshop. We propose to clean back the clock hands removing original paintwork before finishing 'black' in our heritage approved paint system.

We will install all components in sections on site using your lifting equipment (crane) provided. Once the clock faces are installed, we will re glaze in-situ before attaching all the clock exterior components.

Note – It is assumed that the internal workings of the clock will be made good by others following our exterior works and form no part of this survey.

Level 7 Windows (14no)

The 14no windows on the 7th floor are constructed from an iron frame approximately 93" high x 83" wide cast in 6no sections with the middle pane and stained-glass panel mounted within a centrally pivoted opening light with brass hinge and furniture components. The windows are screw fixed within a timber sub-frame.

In many locations the rust build up /corrosion around this central pivot is preventing the opening lights from opening.

The stained-glass panels are approximately 830 x 230mm set within an inner frame pinned outer iron frame. The pins are not visible in all windows due to corrosion / historic paintwork making visibility difficult.

For the ease of the report, I have numbered each window as per the annotated photo below-

Level 7 Windows (14no)



			Fabrication Tolerances		IF IN DOUBT ASK		Rylands's Building Maintenance	
1	2	3	4	5			Annotated Photograph (Window Number & Location)	
6	7	8	9	10			680 Window's	For Survey
11	12	13	14	15				

Window 1 –

Window 1 has previously been removed and unavailable to survey.

Window 2 –

Window 2 has 2no stained glass panels missing. Replaced with a clear pane non original glass of the same size. The 1no stained glass panel left in situ is the central section. There are 3no small breaks apparent within the coloured glass.

The paintwork on the iron is flaking and evidence of rust throughout. The iron stay in the central bottom panel has broken off. The opening light stay appears to complete and in working condition, however the window wasn't opened due to the rust build up around the central brass pivot.



Window 3 –

Window 3 has 2no stained glass panels missing. The one stained glass panel left insitu has 3no visible cracks in the smaller coloured panes and 1no crack in the central clear panes.

The paint on the iron frame similar to 'window 2' has failed throughout, due to little/no maintenance and rusting apparent in various locations.

The central stay is missing / broken but the latch is in complete condition.

**Window 4 –**

Window 4 has 3no stained glass panels in-situ, the central panel has 7no breaks in both the coloured and the clear panes. The bottom left panel has 4no cracks within the coloured panes.



The iron fixings for the stay within window 4 are still evident, however the stay is missing. Again, as per the previous windows the paintwork has failed with rust evident throughout. The bottom rail of the castings has a slight 'bow'. It is not clear if this was an original casting defect, or created by rust jacking between the outer and inner frames.



Window 5 -

Window 5 has all 3no stained glass panels missing. Replaced with non-original clear glass.

The 1no iron stay is missing but the latch appears to be in complete working condition.

The large central pane of 'clear' glass has a large crack from corner to corner.



Window 6 -

Window 6 has 1no stained glass in-situ. There are no visible breaks or cracks within this panel. 2no stained glass panels are missing / replaced with non-original clear glass.

The window stay is missing although the iron fixing lugs are still in-situ.

The iron latch has previously broken and has 1no previous poor repair with a section of folded plate drilled and riveted onto the iron frame.



Window 7 –

Window 7 has 2no stained glass currently in-situ. The central panel is missing / replaced with clear glass. The panel on the RHS has a number of cracks in a single-coloured pane.

The stay is missing and the opener is broken / snapped.



Window 8 –

Window 8 has 2no stained glass panels in-situ. There are 4no cracks within these panes. 1no stained glass panel has been removed and replaced with a single clear glass pane.

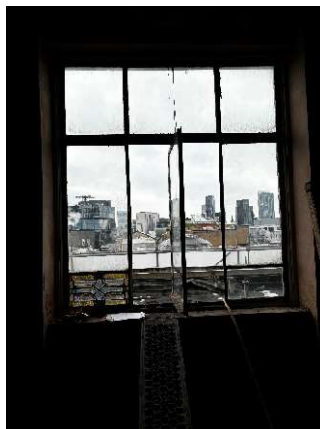
The latch has had a previous poor repair undertaken with a folded plate drilled and riveted onto the ironwork. The stay is missing, however the iron fixing brackets are in situ.

**Window 9 –**

Window 9 has 2no stained glass panels missing / replaced with clear single panes. The 1no stained glass window in-situ has 3no breaks within the panes.

The stay is missing but the iron fixing lugs appear to be in complete condition. The latch appears to be in complete condition.

The window was open, and the operation of the opening light appears to be working with no apparent issues.



Window 10 –

Window 10 is missing all 3 of the original stained-glass panels. The opening light operation was checked and appears to be in full working order.

The window latch has had a previous poor repair with a folded plate drilled and riveted to the iron frame.

The window stay is missing.

**Window 11 –**

Window 11 has 2no of the stained-glass panels missing and replaced with clear panes.

The stained-glass window left in-situ has 2no visible cracks.

The stay is missing, and the latch has had a previous poor repair similar to those mentioned above.

Due to the failed paintwork, there is significant bowing between the bottom and middle panels. This is believed to be due to 'rust jacking' a build up of rust between these two panels.

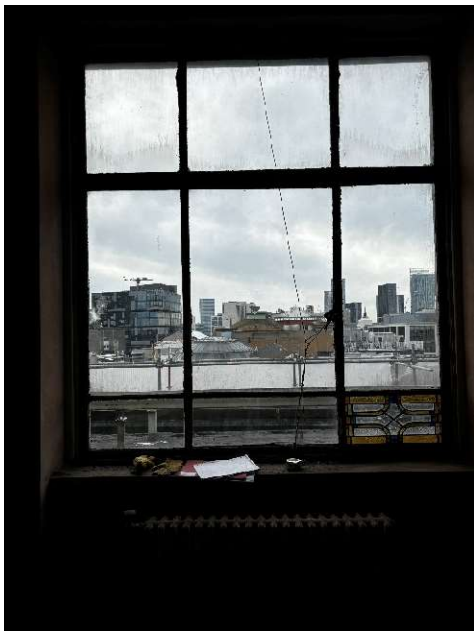


Window 12 –

Window 12 has 2no stained glass panels missing / replaced with clear glass panes. 1no stained glass panel has 2no cracks.

The latch in complete condition and appears to be working. The stay is missing.

There is significant bowing between middle panels on 2 sides. This is believed to be due to the paintwork failing and rust jacking between the joints.



Window 13

Window 13 has all 3 of the original stained-glass panels missing. These have been replaced with clear panes. The stay is missing, and the latch appears to be in working order.

There is significant rust across on all sides of the frame in particular the bottom of the iron frame.



Window 14 –

Window 14 has 3no stained glass panels missing / replaced with clear panes. There is a large crack on the right middle pane in the clear glass.

There stay is missing and the latch has a previous poor repair similar to those mentioned above.



Modus Operandi

Taking great care, we will tag and record, then remove the stained-glass panels. We currently assume this to be on a putty bed that can be cut and released from the iron frame. We will suitably pack the stained-glass windows for transportation back to our workshop. Using suitable access provided we will carefully remove the clear glass (from the outside) to reveal the fixings. Once the fixings into the timber subframe have been revealed and all glass removed we will extract the iron frames from sub frame, taking as much care as possible to cause any damage to the timber. (It is assumed that the timber will need replacing however, any original timbers will be useful for replicating as close as possible to the originals).

Iron Frames – Within our workshops we will blast clean to SA 2.5 standard enabling us to assess the true condition of the iron frames. Following blast cleaning we will undertake an internal condition survey and using heritage approved techniques we will undertake minimal repairs. Once repairs have been completed, we will finish paint using our heritage approved paint system in a single BS or RAL colour of your choice before installing into existing locations made good by yourselves prior to our site visit.

Glazing - Using the stained-glass sample removed from site we will replicate a new stained-glass panel to represent the original in all respects. We will make good the panel by undertaking necessary repairs to the originals. We will glaze the clear glass sections in the closest available modern alternative to closely match the original.

Level 7 Windows In Corridor

Window 1 (Closest to the Cupola)

Window 1 is an iron frame window, glazed with presumed small art glass. The colonial metal casement frame is 57" x 37". The window is constructed from 3 no equal sections with the centre section being an opening light.

Generally, the ironwork appears to be complete condition, without any obvious defects.

The timber frame in which the iron resides is in poor condition. There is no stay evident but no evidence to say there once was a stay originally.



Window 2

Window 2 is an iron frame window, glazed with presumed small artichard glass. The colonial metal casement frame is 57" x 35.5". The window is constructed from 3 no equal sections with the centre section being an opening light.

The glazing is broken on 6 no panes, and the iron appears to be in salvageable condition. The paintwork has failed with rust evident throughout.

There is no evidence of the stay, but the latch has had a previous poor repair.



Window 3

Window 3 similar to 1 & 2 mentioned above is an iron casement window glazed with small artichard glass. The window appears to be installed upside down in comparison to the windows either side.

The glass is broken throughout. The stay is missing and there is evidence of a previous poor repair on the latch. The ironwork appears to be in ok condition with evident rust build up due to failed paintwork.



Window 4

Window 4 similar to those mentioned above is an iron casement window glazed with small artc glass. The window appears to be installed upside down in comparison to the windows either side.

There are 4no broken panes. The stay is missing and there is evidence of a previous poor repair on the latch. The ironwork appears to be in ok condition with evident rust build up due to failed paintwork.



Modus Operandi

We propose to carefully remove the original glazing to reveal the fixing details between the cast iron frame and timber subframe. Once a fixing has been determined we will carefully remove the iron frame from the timber sub frame.

Using the goods lift provided (on site) and correct manual handling techniques we will remove the iron frames to our transport for removing to our workshop.

Back in our workshop we will blast clean the iron frames to SA 2.5 standard to reveal the condition. Once blast cleaned, we will undertake a priced condition survey and issue for your approval.

Following your approval, we will undertake any required repairs and finish using our heritage approved paint system in a single BS or RAL colour of your choice.

We will then install into existing locations into stonework made good by others prior to our installation. All windows will be glazed in-situ using new glass to closely match the originals previously removed.

Level 7 Boardroom Windows

The windows in the level 7 boardroom windows consist of 2no metal casement windows approximately 22.5" x 58". The lower opening lights are 34" x 22". The upper opening lights measuring 24"x22".

There are 4no stays missing on the 2no windows.

There have been 4no previous poor repairs with a folded plate drilled and riveted to the cast iron frame.

Both bottom opening lights have their stays in-situ and appear to be in full working condition.

The majority of the paintwork on the bottom edging of the ironwork has failed but the iron appears to be sound condition.

The central large window has previously been removed and temporary boarded up. The large opening is 117" x 59".



Modus Operandi

We propose to carefully remove the original glazing to reveal the fixing details between the cast iron frame and timber subframe. Once the fixings have been determined, we will carefully remove the iron frame from the timber sub frame.

We will move the iron frames to our transport.

Whilst on site, we will template the larger window and we will then produce working drawings for your approval both aesthetically and structurally.

We will produce patterns / carvings of the window frame based off the approved drawing and cast in iron.

Within our workshops we will blast clean the iron frames to SA 2.5 standard to reveal the condition. Once blast cleaned, we will undertake a priced condition survey for your approval.

Following your approval, we will undertake any required repairs and finish using our heritage approved paint system in a single BS or RAL colour of your choice.

We will then install into existing locations into stonework made good by others prior to our installation. All windows will be glazed in-situ using new glass to closely match the originals previously removed.

Level 7 Boardroom Ventilation Grates

There are 2 no ventilation grates on the back wall. The grates are 23" x 9" and constructed from cast iron.

The grills appear to be in ok condition with small areas of paintwork failing.

**Modus Operandi**

We propose to carefully remove the 2 no grates from site by removing the 6 no screws / pins. Back at our workshop we will blast clean the grates to SA 2.5 standard to reveal the true condition of the castings.

Modus Operandi

We propose to carefully remove the 1no fixed light on site taking great care to preserve both the framework and the glazing.

We will template the window opening within the doors that require a new fixing light to enable us to replicate within our workshop.

Within our workshops, we will carefully de glaze to expose the brass / bronze glazing bars & strips. Once exposed, we will suitably clean both the glazing and metalwork before undertaking a priced condition survey for your approval.

Following your approval, we will undertake any required repairs, polish and lacquer finish prior to glazing with the original glass where possible. Where new glass is required we will replace with the closest alternative to the original.

Where there is no fixed light in situ we will replicate to closely replicate the 1no original removed from site. Glazing in the closest modern alternative to the original.

We will suitably pack all lights, transport to site and install into fully resorted fire doors.

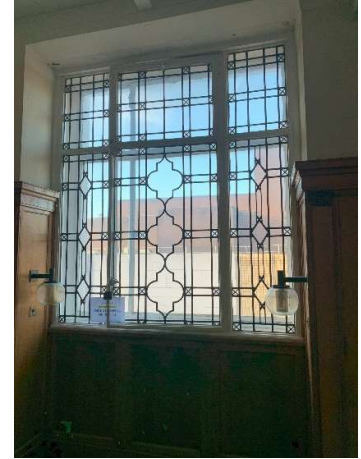


Secondary Glazing Level 2

The secondary glazing on level 2 consists of a 1no large leaded light situated within an iron frame. There are 2no frames of the same design (metal casement with higher 'hopper' style opener). Both the iron frame and the leaded lights appear to be in good / fully working condition.

There are no visible cracks / breaks within the glazing and the lead comes appear to be in good condition throughout.

The paintwork has been maintained with no visible rust or cracks within the ironwork.



Modus Operandi

It is believed that the only reason for the window's being removed is to replace the exterior glazing. Given this, our proposal would be to tag and carefully de-glaze the leaded lights on site before tagging & removing the iron frames. We will lower to ground and transport to our local workshop.

Within our workshops we will then scrape out the remaining putties and glass remnants by hand. Following removal of the putties we will, blast clean all frames to SA 2.5 standard removing all corrosion and old paints in a controlled environment (lead paint assumed).

Once blast cleaned, we will carry out a post blast condition survey, to assess the current condition of each window frame when all the damage is revealed and provide you with a priced report covering any unforeseen repairs and issue for your approval.

Following your approval, we will restore the opening lights and secure to best possible fit, assuming all the window furniture (catches stays and hinges are suitable for reuse). The border leads will be removed, new ½" border leads fitted, soldered, and fully cemented on. Lights bench cleaned and polished black.

Using our heritage approved paint system, we will finish paint each frame in single BS/RAL colour of your choice. Once finished painted we will install the refurbished iron / steel frames into repaired masonry prepared by yourselves, allowing others to seal the perimeter with burnt sand mastic or similar to seal.

Following installation, we will re-glaze all glazing on site (using original panes), leaving putties to be painted by yourselves following a putty curing period. (Paint will be provided by Calibre for this purpose).

Cupola Lower Roof Laylight

Following the site survey, it was noted that the laylights were not identical, but of similar size and construction (East wing has 10no triangular facets whereas the West wing has 9no.)

The laylights are constructed of iron glazing bars bolted through a central hub connected via tie bars to the upper roof light.

The glazing bars are spaced with timber packers situated between all 'triangular' sections of the laylight.



Although access was limited through the previously removed / broken glazed sections, we were able to view much of the ironwork and all appears to be in complete condition with little corrosion evident on the surfaces.

The decorative glass is glazed directly onto the crittall style frames. No lead has been used. The panes have been bedded and back pointed in putty.

A number of the panes have been broken and previous repairs have been undertaken meaning there are different types of glass present within the lay lights.



Modus Operandi

We propose to tag and carefully remove the existing remaining glass panes. Our experienced team will endeavour to save as much glass as possible. We will then tag and carefully remove the ironwork subframes using our experienced team, dismantling into manageable sections for transportation back to our workshop.

Once in our workshop we would blast clean all sections to SA 2.5 standard. Following our blast cleaning, when all damage and corrosion can be viewed, we will conduct a survey to evaluate the current condition of the ironwork and to quantify and unforeseen repairs. A priced report will be provided to yourselves for approval.

Our glazing specialist will template the frames for the required glass. We will then source nearest colours available and cut shapes as required. Replacement glass is likely to be antique cathedral glass.

The iron frames will be straightened as required and made ready for installation, replacing fixings with new throughout.

Using our heritage approved paint system, we will finish paint all ironwork in a single BS/RAL colour of your choice.

Following the ironwork restoration, we would deliver to site in manageable sections allowing yourselves to lift to working area. We will then reinstate the ironwork to structurally sound prepared masonry provided by yourselves.

Following installation of the iron frames, we will re glaze the laylights to original specification. Using closest available texture and coloured glass mentioned above.

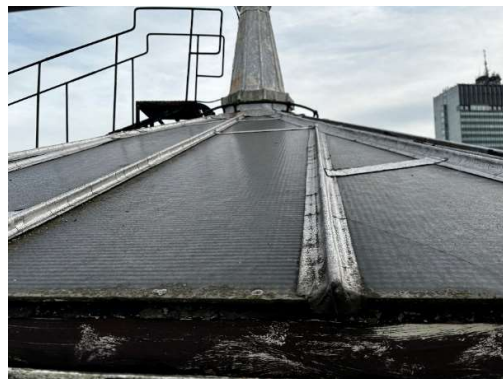
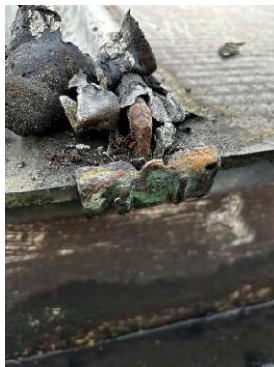
We will touch in any paintwork bruised during our installation / transportation and leave site clean, tidy and free from any of our related waste.

Cupola Higher Rooflight

The roof light is constructed using lead wrapped iron glazing bars. The condition of the ironwork is unknown due to the ironwork currently being lead covered. Each glazing bar is capped off at the end with a brass capping. All the brass caps appear to be in situ and in complete condition.

The roof light is currently glazed with Georgian wired cast glass. The glass on whole appears to be complete condition with a small number of cracks visible within the glazing. Many cracks appear to have been over-taped to prevent leaks and water ingress.

The exterior central hub / spigot was unavailable for survey. Due to the glazing bars being lead wrapped with an exterior lead flashing no fixings could determine.



Modus Operandi

The glazing bars were found to be original lead wrapped iron. This wrapping process used many years ago and was undertaken using special, very expensive, tooling and no longer viable for replication. The lead when new and pliable, seals the ironwork from moisture, but after time the lead degrades, becomes brittle, cracks and allows rainwater to pass between the wrap and the iron, effectively trapping moisture against the (unpainted) iron causing them to corrode quickly.

Although not visible from the surface it is believed that many of the glazing bars are probably quite rusty but have not yet expanded enough to split the lead covers and so are not visible currently. To view the extent of the hidden corrosion and carry out repairs, we will need to remove the lead wraps completely (destroying it in the process). We would then blast clean the iron to remove all corrosion, assess their integrity and provide a fixed price for their repair.

We propose to strip, blast clean and then make up repairs with weld and insert new iron material where required, then treat all to a full, quality paint system, return to site, set out the glazing bars evenly to their original positions and screw fix the glazing bars to the ring beam and central hub / finial. Following installation, we will then need to template the glazing bars and agree a glazing detail (now that the bars are not to be wrapped again), reglaze and finally cap them with lead (by others).

Frieze in Cupola's

Access to the frieze below the cupola's was not available so a detailed survey of this was not achieved. Without suitable access it is unclear what material the frieze is constructed of but from floor level it is believed to be decorative plaster. The reasoning behind this is due to there being no visible joins / fixings similar to those visible on the exterior of the building.

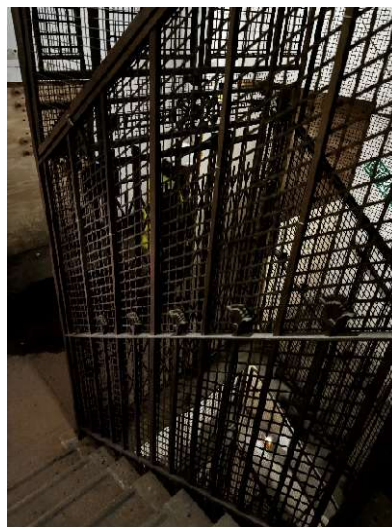


Existing Metal Cage Lift

Metal decorative lift shaft is constructed from iron painted in a bronze colour. On each accessible landing there is an iron concertina door with a decorative arch.

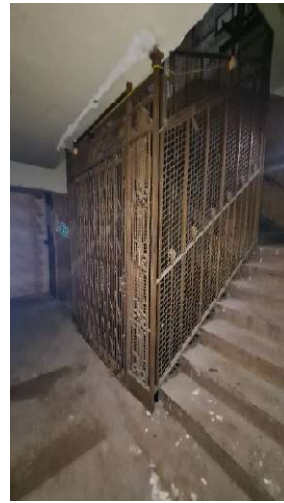
The cage has been modified in recent years with mild steel mesh to increase the height of the guard rail and reduce the open gaps on the landings (assumed for health and safety reasons)

The 'dog bars' are finished with a decorative cast iron finial. There are several of the finials broken / missing across all levels.



The concertina doors appear to be operational with only 4no of the bars visibly bent / damaged. The decorative iron scroll work situated either side of the concertina doors and on the steps appears to be in complete condition protected over recent more recent times via the addition of the mild steel mesh.

There is a lift call bell to the right-hand side of the lift doors on each landing. Although visible and the buttons working there is no evident power feed so not currently operational.



Modus Operandi

We propose to remove the lift doors from their current location back to our workshop for a full restoration. Leaving the caging / walls in place for an in-situ restoration.

For the lift doors, we propose to tag /record all doors and components by note and photograph. Dismantling as far as necessary, to enable us to remove the existing lift doors from site.

Within our workshop we blast clean to SA 2.5 standard. Once blast cleaned, we will carry out our priced condition survey, detailing the current condition of each door and the extent of the works required.

Following your approval, we will carry out any necessary repairs and finish paint all sections in a single BS/RAL colour of your choice using our high-quality heritage approved paint system.

We will re assemble to refurbished door components prior to our installation and install into pre prepared fixing locations made good by ourselves. Before leaving site, we will check the operation of the restored doors and touch up and bruised paintwork following our installation.

For the lift walls / cage we will remove 1no cast iron finial in good condition for replication purposes. We will then on site, abrade by hand the lift cage/wall where accessible to provide a key for new paintwork. Where corrosion is present abrade to bare metal. Treat corrosion with acidic rust converter. We will install the new castings via a drill and tapped fixing. Re-paint all by hand in single BS/RAL colour of your choice using our high-quality heritage approved paint system. Make good lift shaft door fixings prior to our installation of the doors.

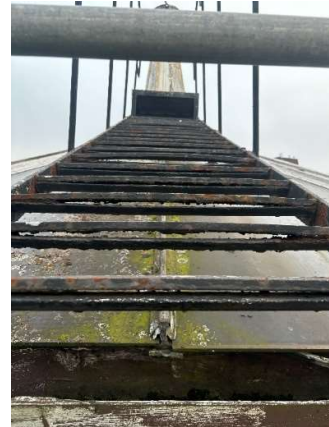
Ladders To Upper Cupola Roof

The ladders to the upper cupola roof are constructed from iron. There are 21no steps with a width of 620mm constructed from a top flat bar tread 2" x ½" thick with a ½" convex underside. The stringers are constructed from ½" iron with weld fixings to the treads.

Access to the top of the stairs was not available but evidently connected via an iron ring fixed into the central hub / finial. The base of the steps are connected via an 'L' shaped bracket fixed into the stone.

The paintwork has failed throughout with evidence of significant rust jacking between the flat treads and convex base.

The ironwork generally appears to be in very poor condition.



Modus Operandi

We propose to tag / record and carefully remove the ironwork dismantling into manageable sections to lowering and transporting to our workshop. Back in our workshop we will blast clean all ironwork to SA 2.5 standard and undertake a priced condition survey for your approval.

Following your approval, we will undertake any required repairs. Where rust is present we will scrape out the accessible corrosion and treat with acidic rust preserver before finish painting using our heritage approved paint system in a single BS or RAL colour of your choice.

Once finished painted we will return to site in manageable sections and install into existing locations. Pockets in the stone are to be made good by others prior to our installation.

Flagpole

The flagpole location was not accessible during our survey. It was apparent from the scaffold deck at rooflight level that the flagpole is no longer in-situ.



Conclusion

Widespread across most of the items listed above there is evidence of failed paintwork and corrosion. Much of the corrosion is inaccessible without dismantling. Given the age of the building, it is assumed that the paintwork will be lead based. An insitu restoration has an associated health and safety risk with lead dust being created in an uncontrolled environment. In addition to the health and safety element an offsite restoration would be recommended due to the age of the ironwork and often, although fixings may appear in

good condition on the exterior, corrosion can be causing difficulties structurally out of sight. Please see below evidence of a failed screw removed from another project we successfully offsite restored. The screw on the exterior appeared to be structurally sound. Because of this, Where practicably we strongly recommend a full off site restoration



Note – More photo's can be made available upon request.

[End]